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| APPLICATION NO.                                                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/800,082                                                      | 03/08/2004  | Shigetaka Kinme      | 04970/0200979-US0   | 8676             |
| 7278                                                            | 7590        | 07/21/2006           | EXAMINER            |                  |
| DARBY & DARBY P.C.<br>P. O. BOX 5257<br>NEW YORK, NY 10150-5257 |             |                      | GARCIA, ERNESTO     |                  |
|                                                                 |             |                      | ART UNIT            | PAPER NUMBER     |
|                                                                 |             |                      | 3679                |                  |

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/800,082

Applicant(s)

KINME ET AL.

Examiner

Ernesto Garcia

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2006 and 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 13, 2006 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

Claims 1 and 7 are objected to because of the following informalities:  
regarding claim 1, --it-- in line 6 should be defined; and,  
regarding claim 7, "and" in line 5 should be a comma, and a comma should be inserted before "and" in line 6. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

### ***Double Patenting***

Applicant is advised that should claim 1 be found allowable, claim 8 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Note that the use of the term “engages” in claim 1, line 6, and “contacts” in claim 8, line 5, are synonymous since engaging inherently results contact.

### ***Claim Rejections - 35 USC § 102***

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oertle, 5,358,350 (see marked-up attachment).

Regarding claim 1, Oertle disclose, in Figures 1 and 13, a coupling structure comprising a shaft body 13, a shaft joint 1, and a coupling shaft 8. The shaft body 13 has a positioning recess 10 close to an end portion thereof. The shaft joint has an engagement groove A1, which is the shaft joint 1 is engages, bores 6,7 facing the engaging groove A1, and a flexible member 24. The shaft body 13 is engaged with the shaft joint 1. The flexible member 24 is provided on an outer side of the shaft joint 1,

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and projects in a depth direction **A2** of the engagement groove **A1** and engages the positioning recess **10**. The coupling shaft **8** is inserted into the bores **6,7**.

Regarding claim 2, the flexible member **24** has a deflection regulating portion **17**, being substantially planar and includes a planar surface facing a side face of the engagement groove **A1**.

Regarding claim 3, a tip **A3** of the flexible member **24** is bent outward in a width direction **A4** of the engagement groove **A1**.

Regarding claims 4 and 5, the flexible member **24** is provided more inwardly than another side face of the engagement groove **A1**.

Regarding claim 6, the shaft body **13** includes a top face **14** and a side face **A5**. The top face **14** is adjacent the coupling shaft **8**. The positioning recess **10** is disposed in the side face **A5**. Note that the coupling is free to rotate that there is no fixed point relative to earth. For instance, the top becomes a side and vice versa when the coupling structure is rotated by 90 degrees.

Regarding claim 8, Oertle disclose, in Figures 1 and 13, a coupling structure comprising a shaft body **13**, a shaft joint **1**, and a coupling shaft **8**. The shaft body **13** has a positioning recess **10** close to an end portion thereof. The shaft joint has an

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engagement groove **A1**, which is the shaft joint 1 is engages, bores **6,7** facing the engaging groove **A1**, and a flexible member **24**. The shaft body **13** is engaged with the shaft joint **1**. The flexible member **24** is provided on an outer side of the shaft joint **1**, and projects in a depth direction **A2** of the engagement groove **A1** and contacts the positioning recess **10**. The coupling shaft **8** is inserted into the bores **6,7**.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aota et al., 6,474,898, in view of Japanese patent, JP8-338440.

Regarding claim 7, Aota et al. disclose, in Figure 7, a coupling structure comprising a shaft body **71**, a shaft joint **72**, and a coupling shaft **17** (Fig. 3). The shaft joint **71** has an engagement groove engaging the shaft body **71**. Bores **73,75** are facing the engagement groove. The coupling shaft **17** is inserted into the bores **66** and couples the shaft body **71** and the shaft joint **72**. A semi-circular groove near an end portion of the shaft body **71** contains the coupling shaft **17**. However, Aota et al. fail to

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disclose the coupling structure provided with a flexible member is provided on an outer side of the shaft joint; the shaft body **71** having a positioning recess close to an end portion thereof; and the flexible member extending in a longitudinal direction of the shaft body **71** and engaging with the positioning recess. The Japanese patent teaches, in Figures 6, 10, and 20, a coupling structure provided with a flexible member **37** provided on an outer side of a shaft joint **3** to retain a shaft body **7** along an axial direction of the shaft body. The Japanese patent further teaches the shaft body **7** having a positioning recess **47** close to an end portion thereof to be engaged by the flexible member.

Further, the Japanese patent teaches the flexible member **37** extending in a longitudinal direction of the shaft body **7** and engaging with the positioning recess **37** to enforce the disassembly of the coupling structure. Therefore, as taught by the Japanese patent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the coupling structure of Aota et al. with a flexible member provided on an outer side of the shaft joint to retain the shaft body along an axial direction of the shaft body, provide the shaft body of Aota et al. with a positioning recess close to an end portion thereof to be engaged by the flexible member, and provide the flexible member extending in a longitudinal direction of the shaft body and engaging with the positioning recess to enforce disassembly of the coupling structure.

***Response to Arguments***

Applicant's arguments with respect to claims 1-6 and 8 have been considered but are moot in view of the new grounds of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30-5:30. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



E.G.

July 18, 2006

Attachment: one marked-up page of Oertle, 5,358,350



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600



Oertle, 5,358,350

